

PELARGONIUM RUST

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Geraniums (*Pelargonium* spp.) are among the most popular of the flowering pot plants (2) and are also used extensively in landscape plantings. Most geraniums originated in South Africa (2) where rust, caused by the fungus *Puccinia pelargonii-zonalis* Doidge was first described in 1926 (1). The rust was not found in Europe until 1962, and did not reach the United States until August 1967, when it was reported almost simultaneously from New York and California (4). It was observed for the first time in Florida in 1970. The majority of Florida nurseries where pelargonium rust was found had obtained their cuttings from California propagators (3). The geranium rust fungus apparently attacks only the florists' geranium, *Pelargonium hortorum* L. H. Bailey. Ivy leaf, Martha Washington, and the scented leaf types are resistant (4).

**SYMPTOMS.** On the upper leaf surface the disease is first noticed as small circular chlorotic spots. The corresponding areas on the leaf undersurface exhibit small whitish blister-like spots with a center of reddish brown spores. As these spots enlarge, the spores appear in a series of concentric rings (fig. 1). Heavily infected leaves turn yellow, dry, and drop prematurely. Spores are spread both by splashing water and by air currents. The blister-like spots appear 7 to 10 days after inoculation, and spores are evident approximately 1 week later (4).

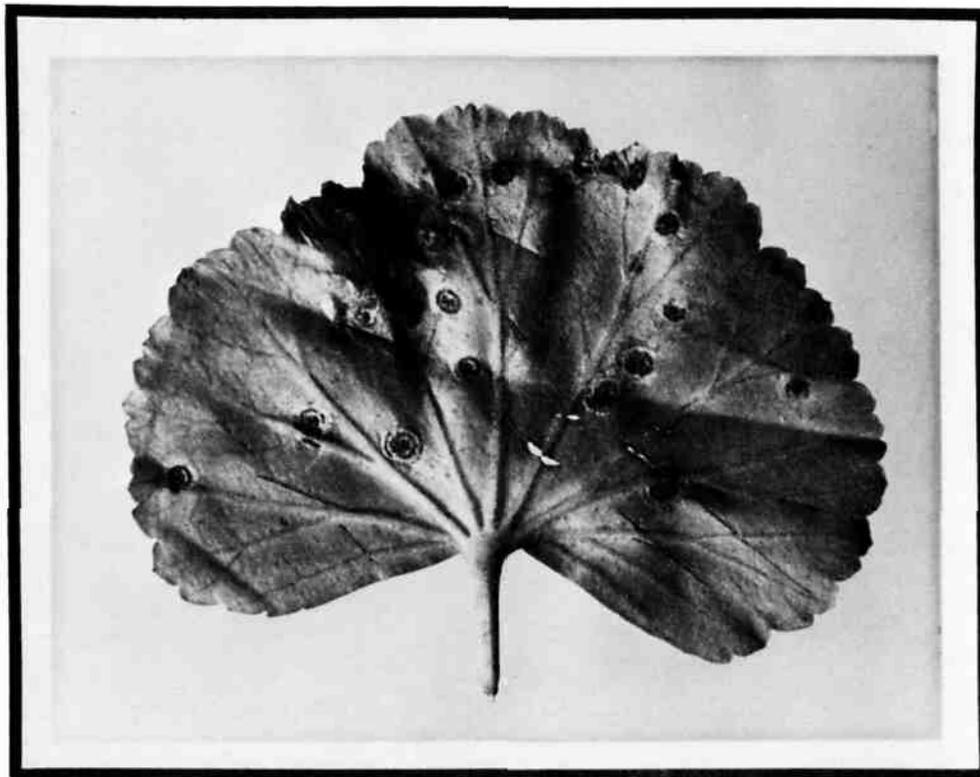


Fig. 1. Geranium leaf showing characteristic concentric rings of pelargonium rust spores on leaf undersurface.

CONTROL. Production practices of crowding pots, overhead watering, and the lack of a fungicide program provide ideal conditions for geranium rust. Fungicides alone will not eradicate the rust fungus (1). A combination of sanitation measures and the application of fungicides is required. It is important that all plants be inspected before they are brought into the greenhouse. If, however, the disease is established in a greenhouse, drastic control measures may be required (4). All diseased plants should be destroyed and the remainder should be sprayed at weekly intervals with Polyram, zineb, or maneb (4). Regular inspection to ascertain that eradication has been achieved should continue for at least 2 months.

#### Literature Cited

1. Anonymous. 1968. Roist bij Pelargonium x hortorum. Plantenziektenkundige Dienst Wageningen. Vlugschrift No. 82. 4 p.
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3. Wehlburg, C. 1970. Pelargonium rust (Puccinia pelargonii-zonalis) in Florida. Plant Dis. Repr. 54:827-828.
4. Williamson, C. E. 1973. Geranium rust a continuing serious problem. New York State Flower Industries Bull. No. 35:4-5.